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What is Claimed:

- 1 1. An anchoring device for attaching soft tissue to bone comprising:
2 an anchor comprised of:
3 a base; and
4 two opposing, inwardly biased, tissue grasping
5 members extending from said base, each said
6 tissue grasping member having a relaxed,
7 inwardly biased position, a partially expanded
8 intermediate position, and an expanded, locked
9 position, wherein said tissue grasping members
10 are closably expandable between said relaxed,
11 inwardly biased position and said intermediate
12 position; and
13 a core having a central axial opening, said core disposed
14 within said anchor and moveable between a
15 proximal position corresponding to said
16 inwardly biased position of said tissue grasping
17 members and a distal position corresponding to
18 said expanded, locked position of said tissue
19 grasping members.
- 1 2. The device of claim 1 wherein said tissue grasping members have an
2 inward facing surface for grasping tissue, and an outer surface having bone
3 engaging barbs.
- 1 3. The device of claim 1 further comprising at least two bone engaging
2 members extending from said base, said bone engaging members having a
3 relaxed,

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4 inward position and an expanded, locking position, wherein said
5 distal position of said core corresponds to said locking position of said bone
6 engaging members.

1 4. The device of claim 3 wherein said bone engaging members have an outer
2 surface with bone engaging barbs extending therefrom.

1 5. The device of claim 1 wherein said core has a periphery with a female
2 section to engage said inward facing surface of said tissue grasping
3 members and thereby lock said anchoring device in said expanded, locking
4 position.

1 6. The device of claim 1 wherein said core has a periphery with a male section
2 to engage said inward facing surface of said tissue grasping members and
3 thereby lock said anchoring device in said expanded, locking position.

1 7. The device of claim 1 wherein the anchor is comprised of a material selected
2 from the group consisting of: titanium, stainless steel, and nitinol.

1 8. The device of claim 1 wherein the anchor is comprised of a biodegradable
2 polymer.

1 9. A system for attaching soft tissue to bone comprising:

2 (a) an anchoring device comprised of:

3 an anchor having:

4 a base, and

5 at least two opposing, inwardly biased, tissue grasping members
6 extending from said base, each said tissue grasping member having
7 a relaxed, inwardly biased position, a partially expanded
8 intermediate position, and an expanded, locking position, wherein

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9 said tissue grasping members are closably expandable from said
10 relaxed, inwardly biased position to said intermediate position; and

11 a core having a central axial opening, said core disposed within said
12 anchor and moveable between a proximal position corresponding
13 to said inwardly biased position of said tissue grasping members
14 and a distal position corresponding to said expanded, locked
15 position of said tissue grasping members; and

16 (b) a delivery device comprising means for closably expanding said tissue
17 grasping members between said relaxed, inwardly biased position and said
18 intermediate position, and for moving said core from said proximal
19 position to said distal position.

1 10. The system of claim 9, wherein said delivery device comprises an applicator and
2 an expansion rod movably disposed within the applicator, the
3 expansion rod moveable between first, second, and third positions,
4 said first position corresponding to said relaxed, inwardly
5 biased position of said tissue grasping members,
6 said second position corresponding to said partially
7 expanded intermediate position of said tissue grasping members,
8 and
9 said third position corresponding to said expanded, locking
10 position.

1 11. The system of claim 9, wherein said delivery device comprises an applicator
2 having a distal end and an expansion rod movably disposed within
3 the applicator;

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wherein the distal end of the applicator is radially moveable between a first position for holding the anchoring device and a second position for releasing the anchoring device; and

wherein the expansion rod is moveable between a retracted position which corresponds to the first position of the applicator, and a forward position which corresponds to the second position of the applicator.

12. A method for reattaching tissue to bone comprising the steps of:

grasping a portion of soft tissue between two opposing tissue grasping members;

inserting the tissue grasping members along with the grasped portion of soft tissue into a hole in a bone; and

anchoring the device within the hole into which it was inserted by expanding the tissue grasping members.

13. The method of claim 12 wherein said anchoring step comprises expanding said tissue grasping members by pushing a core distally between said grasping members to wedge said core between said grasping members.

14. The method of claim 13 wherein said core has a central axial opening.

15. The method of claim 14 further comprising the step of inserting a second portion of soft tissue into said central axial opening of said core after said device is anchored in said bone hole.

16. A method for reattaching tissue to bone comprising the steps of:

applying a separation force against two opposing tissue grasping members which are inwardly biased to separate the tissue grasping members;

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5 moving said tissue grasping members around a portion of soft
6 tissue;
7 removing the separation force to allow said tissue grasping
8 members to close around the portion of soft tissue and
9 thereby grasp the soft tissue;
10 inserting the tissue grasping members along with the grasped
11 portion of soft tissue into a hole in a bone; and
12 anchoring the device within the hole into which it was inserted.

1 17. The method of claim 16 wherein said anchoring step comprises expanding
2 the tissue grasping members radially outward.